

## Images in Medicine

### Cyclic oculomotor palsy in a young male

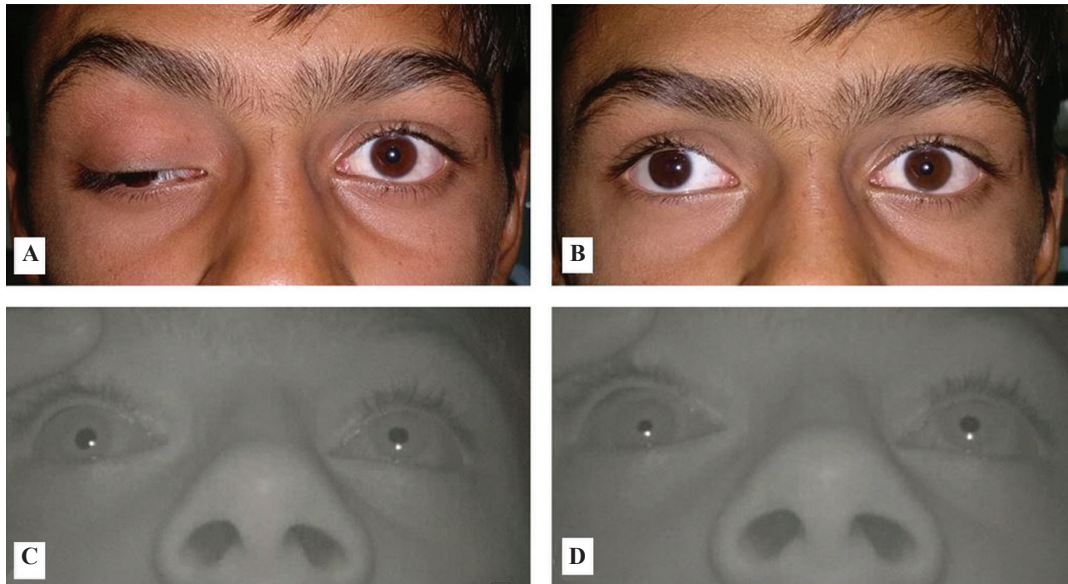


FIG 1. Right eye oculomotor palsy in the paralytic phase characterized by ptosis, exotropia with hypotropia (A); oculomotor palsy in the spastic phase characterized by resolution of ptosis and hypotropia (B); right eye infrared pupillometry shows dilated pupil in the paralytic phase (C); right eye infrared pupillometry shows pupillary constriction in the spastic phase (D).

A 16-year-old male presented with complaints of drooping of the upper eyelid of the right eye with outward and downward deviation of the eye with poor vision since birth. He had no systemic illness. Two phases of clinical findings were noted. In the paralytic phase (40–50 seconds), the patient had complete ptosis along with the presence of anisocoria with the right eye pupil of 5 mm and left eye pupil of 3 mm. There was an exotropia and hypotropia in the right eye. In the spastic phase (10–12 seconds), there was a resolution of ptosis, anisocoria and eye deviation (Fig. 1). Based on these clinical findings, a diagnosis of cyclic third cranial nerve palsy was made.

Cyclic oculomotor palsy was first reported by Rampoldi.<sup>1</sup> It is characterized by a paralytic phase which may be complete or partial third cranial palsy and a spastic phase characterized by constriction of the pupil along with improvement of ptosis and strabismus.

Loewenfeld and Thompson have proposed that there is some insult in the form of trauma or infectious aetiology occurring at an early age of development resulting in damage to the intracranial portion of the third cranial nerve resulting in damage to the nucleus.<sup>2</sup> The damaged nucleus may recover partially resulting in abnormal connection with both central and peripheral target tissues. These abnormal cells are thought to be responsible for the cyclic nature of the entity where the summation of sub-threshold impulses to threshold levels occurs which are then discharged periodically.<sup>2</sup>

*Conflicts of interest.* None declared

#### REFERENCES

- 1 Rampoldi R. Casuistica clinica. II. Singolarissimo caso di equilibrio motorio oculopalpebrale. *Ann Ottolmo* 1884;13:463–9.
- 2 Loewenfeld IE, Thompson HS. Oculomotor paresis with cyclic spasms. A critical review of the literature and a new case. *Surv Ophthalmol* 1975;20:81–124.

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